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IN THE CLAIMS:

Please amend the claims as follows:

1. (original) A method for solid free-form fabrication of a three-dimensional object, comprising:

depositing a bulk amount of phase-change material in a defined region;

selectively ink-jetting an ultraviolet initiator onto a predetermined area of said defined region, wherein said ultraviolet initiator defines a cross-sectional area of said three-dimensional object; and

exposing said ultraviolet initiator to an ultraviolet light to facilitate cross-linking of said defined region.

2. (original) The method of claim 1, wherein the depositing a bulk amount of phase-change material step is performed after the selectively ink-jetting an ultraviolet initiator step.

3. (original) The method of claim 1, wherein said depositing a bulk amount of phase-change material comprises depositing a pre-determined quantity of phase-change material with one of a print head operating in a low precision condition, a bulk spraying apparatus, a roller, a screen-printing device, or a doctor-blade device.

4. (original) The method of claim 1, wherein said selectively ink-jetting an ultraviolet initiator comprises controllably jetting said ultraviolet initiator to predetermined locations of said defined region.

5. (original) The method of claim 4, wherein said ultraviolet initiator is controllably jetted into a non-solid phase-change material.

6. (original) The method of claim 4, wherein said ultraviolet initiator is controllably jetted on top of a solidified phase-change material.

7. (original) The method of claim 6, wherein said ultraviolet light is configured to re-liquefy a surface layer of said phase-change material.

8. (original) The method of claim 7, wherein said ultraviolet light further comprises infrared radiation.

9. (original) The method of claim 4, wherein said ultraviolet initiator is controllably jetted by one of a thermally actuated inkjet dispenser, a mechanically actuated inkjet dispenser, an electrostatically actuated inkjet dispenser, a magnetically actuated inkjet dispenser, a piezoelectrically actuated inkjet dispenser, or a continuous inkjet dispenser.

10. (original) The method of claim 1, wherein said ultraviolet light facilitates a selective cross-linking of said phase-change material.

11. (original) The method of claim 10, wherein said ultraviolet light is provided by one of a scanning unit or a flood exposer.

12. (original) The method of claim 10, further comprising removing a non-cross-linked phase-change material from said cross-linked phase-change material.

13. (original) The method of claim 12, wherein said non-cross-linked phase-changed material is removed from said cross-linked phase-change material by the application of a thermal energy.

14. (original) The method of claim 1, further comprising applying ultrasonic energy to said phase-change material;

wherein said ultrasonic energy is configured to facilitate a mixing of said phase-change material and said ultraviolet initiator.

15. (original) The method of claim 1, wherein said phase-change material comprises one of an unsaturated monomer containing at least one unsaturated functionality or an oligomer containing at least one unsaturated functionality.

16. (original) The method of claim 15, wherein a melting temperature of said phase-change material is higher than an ambient melting temperature.

17. (original) The method of claim 16, wherein said phase-change material comprises one of a stearyl acrylate, a cyclohexane dimethanol dimethacrylate, a cyclohexane dimethanol diacrylate, or a tris (2- hydroxy ethyl) isocyanurate triacrylate.

18. (original) The method of claim 15, wherein said phase-change material comprises a high melting unsaturated monomer or oligomer combined and plasticized with an unsaturated monomer or oligomer having a lower than ambient melting temperature.

19. (original) The method of claim 18, wherein said unsaturated monomer or oligomer having a lower than ambient melting temperature comprises one of an isodecyl methacrylate, a 2-phenoxyethyl acrylate, an isobornyl acrylate, a propylene glycol monomethacrylate, a propylene glycol dimethacrylate, an ethylene glycol dimethacrylate, a 1,6-hexanediol dimethacrylate, a urethane acrylate, or an epoxy acrylate.

20. (original) The method of claim 1, wherein said ultraviolet initiator comprises one of an aromatic ketone or a hydroxyl ketone.

21. (original) The method of claim 20, wherein said ultraviolet initiator comprises one of a, benzyl dimethyl ketal, a benzoin n-butyl ether, a trimethyl benzophenone, a benzophenone, or an alpha hydroxy ketone.

22. (original) The method of claim 1, wherein said phase-change material comprises a polymerizable epoxy functionality; and

said ultraviolet initiator comprises a jettable cationic photoinitiator.

23. (original) The method of claim 22, wherein said jettable cationic photoinitiator comprises a solution of one of a triaryl sulfonium hexafluoroantimonate, a triaryl sulfonium hexafluorophosphate, or diaryl iodonium hexafluorophosphate.

24. (original) The method of claim 1, wherein said ultraviolet initiator comprises a photoinitiator synergist.

25. (original) The method of claim 1, wherein said ultraviolet initiator comprises one of a dye or a colorant.

26. (original) The method of claim 1, wherein said ultraviolet initiator is deposited prior to said depositing of a bulk amount of phase-change material.

27. (original) The method of claim 1, wherein said phase change material comprises one of a solid or a liquid when deposited.

28. (original) The method of claim 26, wherein said phase change material is a solid when deposited.

29. (original) The method of claim 28, wherein said solid phase change material is a powder or a sheet.

30. (original) The method of claim 29, further comprising heating the solid phase change material to a liquid form either before or after the step of ink-jetting the ultraviolet initiator.

31-67. (cancelled)

68. (new) A method for solid free-form fabrication of a three-dimensional object, comprising:

selectively applying an ultraviolet initiator in a predetermined pattern to a phase-change material that is in a liquid phase, wherein said pattern of said ultraviolet initiator defines a cross-section of said three-dimensional object; and

exposing said ultraviolet initiator to an ultraviolet light to cross-link said phase-change material in said predetermined pattern.

69. (new) The method of claim 68, further comprising depositing said phase-change material in said liquid phase.

70. (new) The method of claim 68, further comprising depositing said phase-change material in a solid phase and then liquefying said phase-change material.

71. (new) The method of claim 70, further comprising depositing said ultraviolet initiator before depositing said phase-change material.

72. (new) The method of claim 70, further comprising depositing said ultraviolet initiator prior to said liquefying said phase-change material.

73. (new) The method of claim 68, further comprising leveling a layer of said phase-change material.

74. (new) The method of claim 68, further comprising heating said phase-change material with a dispenser and then depositing said phase-change material.

75. (new) The method of claim 68, wherein said ultraviolet initiator is a solid dissolved in a carrier fluid.

76. (new) The method of claim 68, wherein said ultraviolet initiator further comprises a photo-initiator synergist.

77. (new) The method of claim 68, further comprising using ultrasonic energy to mix said ultraviolet initiator and said phase-change material.

78. (new) The method of claim 68, further comprising heating said ultraviolet initiator with a dispenser prior to said applying said ultraviolet initiator to increase a viscosity of said ultraviolet initiator.

79. (new) The method of claim 68, wherein application of said ultraviolet initiator occurs simultaneously with deposition of said phase-change material in different portions of a build area.

80. (new) The method of claim 68, wherein said phase-change material is applied in said liquid phase and then solidified, said ultraviolet initiator is then applied to said phase-change material, said phase-change material is then re-liquefied and permeated by said ultraviolet initiator.